

### **ABSTRACT OF THE DISCLOSURE**

A circuit for detecting light is disclosed comprising: a) a light-integrating photo-sensor circuit having one or more thin-film photosensors and being responsive to a variable integration period signal and to ambient light for  
5 producing a photo signal representing the intensity of the ambient light, wherein the photo signal may be in one of at least three states including a no-signal state, an in-range state, and a saturated state; and b) a control circuit for receiving the photo signal and automatically increasing the period of the integration period signal when the photo signal is in the no-signal state and decreasing the period of  
10 the integration period signal when the photo signal is in the saturated state so as to result in the photo signal being in the in-range state and producing a corresponding ambient light signal. In particular embodiments of the invention, the circuit for detecting light is employed as a component of a flat panel display, and the ambient light signal is used for adjusting the brightness of the flat-panel  
15 display. The invention enables an improved dynamic range for thin-film photosensors, particularly when used with a flat-panel display.